FLORIDA HIGHWAYS



Project No. 563, Osceola County

Vol. II

AUGUST, 1925

No. 9

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IN THIS ISSUE:

"Marion County's Modern Highways Now Under Construction"



A 1917 concrete pavement—Adams St., Bethlehem, Pa. Carey Elastite saves spring patching.

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This year probably 4,000,000 new cars will be on the road. Compared to this increase, the mileage of new permanent roads will be insignificant.

We don't want to be a nation on wheels, with no place to go.

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Your highway authorities are ready to carry on their share of this great public work. But they must have your support.

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FLORIDA HIGHWAYS



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Transactions at a Special Meeting of The State Road Department, Tallahassee, July 25, 1925

At a meeting of the State Road Department held at the offices of the Department in Tallahassee, July 25th, 1925, at ten o'clock, A. M., there were present Messrs. W. J. Hillman, W. M. Corry and F. A. Hathaway in person and Messrs. E. P. Green and I. E. Schilling by proxies given to W. J. Hillman, which proxies are on file in the records of the Department.

Dr. Fons A. Hathaway, appointed by the Governor to succeed Judge H. B. Philips, as member of the Department from the State of Florida at Large, met for the first time with the Department, having duly qualified as a member thereof.

There were also present the Secretary, State Highway Engineer and Attorney for the Department.

The meeting was called to order by Capt. Hillman, who stated that its purpose was the selection of a Chairman for the remainder of the year 1925, to succeed Judge H. B. Philips.

Capt. Hillman nominated Dr. F. A. Hathaway as Chairman of the Department, which nomination was seconded by Mr. Corry, and Dr. Hathaway was unanimously elected as such Chairman, and assumed the Chair and his duties as such, having filed the additional bond required of the Chairman.

The following letter from Judge H. B. Philips was read and upon motion of Dr. Hathaway, seconded by

Mr. Corry, and unanimously adopted, was ordered spread in full on the Minutes:

Tallahassee, Florida, July 23, 1925.

Capt. W. J. Hillman, Live Oak, Florida.

Mr. W. M. Corry, Quincy, Florida.

Mr. E. P. Green, Bradenton, Florida.

Mr. I. E. Schilling, Miami, Florida.

Members, State Road Department, of Florida.

Gentlemen:

Upon the occasion of your meeting to reorganize the Department, I desire to state that because of the fact that our quarterly meeting was held so short a time ago, at which time full report and information was given as to all matters in which the members might be interested and nothing having occurred since then except those matters in the knowledge of

the Secretary, Chief Engineer and Attorney for the Department, it appears to me that no formal report is required from me. You will find that those in the office are in position to give you all information on Department business which you may desire.

Upon this occasion, also, I deem it proper for me to say that I keenly appreciate the co-operation you have given me in the past in the discharge of my duties as Chairman of the Department, and furthermore, I keenly appreciate the harmony that has prevailed among the members of the Department and our organization. This thought I shall always carry with me

I wish you and each of you to know that I am deeply interested in your work and if at any time you find that I may be of service to you, I will deem it a privilege to be called by you.

With my sincerest personal regards to each and

every one of you,

Very truly yours,

(Signed)

H. B. PHILIPS.

Project 41—Dade County

Mr. Robert H. Gamble, of counsel for the Board of County Commissioners of Dade County, informally presented to the Department the request of said Commissioners that bids be advertised for and a contract let for the immediate construction of Project No. 41 in Dade County. No action was taken, the members having determined to take no action of any sort at this meeting beyond the selection of a Chairman.

Mr. Gamble was advised that a called meeting of the Department will be held at any early date, and that the matter will then be considered.

Senator W. W. Phillips was called upon and addressed the Department informally on certain phases of the road construction work.

There appearing no further business, the meeting was adjourned.

Transactions of the State Road Department at Its Third Quarterly Meeting Held in Tallahassee, July 2, 1925

The third quarterly meeting of the State Road Department was held in Tallahassee, Florida, with all members, State Highway Engineer, Attorney for the Department and Secretary present.

The minutes of the second quarterly meeting were read, and when duly corrected, were approved.

The report of the Chairman was read and upon motion approved and ordered filed.

The Chairman reported the following contracts awarded, the vote of the members on same having been received by mail:

Project 647, Highlands County, Road 8, grading; \$15,200.00; awarded to Otis Hardin, Okeechobee,

Project 607-B, Clay County, Road 3, rock base; \$81,091.20; awarded to Whitney Construction Company, St. Augustine.

Project 617, Alachua County, Road 5; grade and drainage; \$212,506.06; awarded to Taylor & Cox, Birmingham, Alabama.

Project 618, Alachua County, Road 5: grade and drainage; \$44,693.88; awarded to J. R. & J. B. Miller, Baconton, Georgia.

Project 628, Volusia County, Road 3; rock base; \$138,270.00; awarded to L. M. Gray, Oak Hill, Florida.

Projects 629 and 647, Highlands County. Road 8; rock base; \$141,921.31; awarded to H. E. Wolfe, Elkton, Florida.

Project 638, Santa Rosa County, Road 1; embankment Blackwater Bridge, \$14,700.00; awarded to S. G. Collins, Milton, Florida.

Project 661, Lake County. Road 2; sheet asphalt, \$150,313.82; awarded to Southern Paving Construction Company, Chattanooga, Tennessee.

Project 633, Gadsden County, Road 1; clearing, grading, grubbing; \$55.524.96; awarded to Taylor Contracting Company, Birmingham, Alabama.

Project 639, Gadsden County; Road 1; clearing, grading, grubbing; \$34,531.06; awarded to Taylor Contracting Company, Birmingham, Alabama.

Contracting Company, Birmingham, Alabama.
Project 642, Road 3, Putnam County; clearing, grading, grubbing; \$60,764.49; awarded to B. Booth and Company, Green Cove Springs, Florida.

Award of Contracts Confirmed

Upon motion of Mr. Schilling, seconded by Mr. Green, the following resolution was adopted:

Resolved, That the action of the Chairman in awarding the contracts listed above is hereby ratified and confirmed.

Alachua County

Upon motion of Capt. Hillman, second by Mr. Corry, the following resolution was adopted:

Whereas, Alachua County has voted bonds in the sum of \$12,000 per mile for the construction of State Road No. 14 between Gainesville and the Putnam County line; and

Whereas, this section of road is a part of the Federal Seven Per Cent System of Florida and will ultimately be built as such; and

Whereas, a large part of the location of this road can be made to conform to a location acceptable to this Department and the Bureau of Public Roads; Now, Therefore, Be It

Resolved, That this Department will make surveys and if Alachua County will turn over to the Department \$12,000 per mile on such part of this road as the location is acceptable, the Department will supplement these funds with Federal Aid sufficient to construct a standard rock base with surface treatment.

Alachua County-Road No. 14

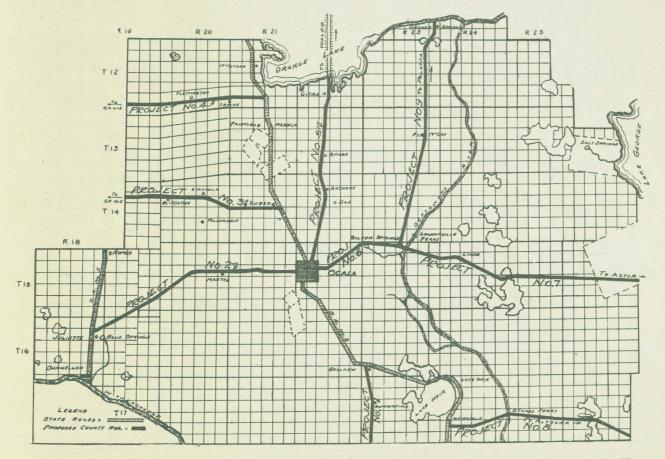
Upon motion of Capt. Hillman, seconded by Mr. Corry, the following resolution was adopted:

(Continued on Page 18)

Marion County's Modern Highways Now Under Construction

By J. E. WALKER, County Engineer

Sketch Showing Nine Projects in Program Totalling 138 Miles. Bond Issue of 1924 Amounting to \$1,5000.00 Including
16.5 Miles State Road No. 31 and 7.1 Miles State Road No. 23



All roads now under construction. J. E. Walker, County Engineer.

Project No. 1, From Belleview, on State Road No. 2, to the Sumter County line via Summerfield, following State Route No. 23, 7.1 miles. Estimated cost \$73,007.00.

Project No. 2, From Ocala to State Road No. 5, via Martel, 19.3 miles. Estimated cost \$263,846.00.

Project No. 3, From State Road No. 2, near Zuber, to the Levy County line, 13.8 miles. Estimated cost \$182,798.00.

Project No. 4, From State Road No. 2, near Orange Lake to the Levy County line, via Flemington and Irvine, 11.9 miles. Estimated cost \$152,944.00.

Project No. 5, From Ocala to the Alachua County line, via Anthony and Citra following State Route No. 31, 16.5 miles. Estimated cost \$215,440.50.

Project No. 6, From Ocala to the Oklawaha River, via Silver Springs, 8.9 miles. Estimated cost \$125,675.00.

Project No. 7, From the Oklawaha River to the Lake County line, via Lynne, 22.5 miles. Estimated cost \$122,732.50.

Project No. 8, From State Road No. 2 at Weirs-

dale to the Lake County line, via Starke's Ferry, 17.6 miles. Estimated cost \$130,449.00.

Project No. 9, From a point on Project No. 6 near the Oklawaha River to the Putnam County line, via Fort McCoy, 21.1 miles. Estimated cost \$233,108.00.

The finances for carrying on this work are the proceeds from the sale of bonds voted on April 30th, 1924. These are 5% interest bearing and to be retired in twenty years from July 1st, 1924. Inasmuch as the amount of the bond issue was determined from preliminary estimates of cost submitted by the Engineer, the discount in the sale of bonds will affect only the contingency fund and the interest from the money derived from the issue which is now in Ocala Banks will very nearly, if not entirely, compensate for this discount. Accurate cost keeping methods account for the expenses of construction work on each project as differing from the contingent fund and these also are carefully watched by the Engineer with the view of good economics. The County's own construction forces and equipment are doing this work.



Florida Highways

Published Monthly
Official Publication of the State Road Department

PERSONNEL OF DEPARTMENT

F. A. HATHAWAY, Chairman

W. J. HILLMAN

J. HARVEY BAYLISS

E. P. GREEN

I. E. SCHILLING

ELLA CREARY THOMPSON, Secretary

PERSONNEL OF EMPLOYEES IN GENERAL CHARGE OF THE WORK OF THE DEPARTMENT

Engineering Division

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L. K CannonAss'	t State Highway	Engineer
G. L. Derrick	Bridge	Engineer
C. W. DeGinther	Ass't Bridge	Engineer
Harvey A. Hall	Testing	Engineer
F. W. Berry, Jr	Office	Engineer
John R. Stewart	Supt. of E	quipment
R. L. Bannerman	Div. Engr. 1st	Division
M. P. Philips	Div. Engr. 2nd	Division
R. J. Cassie	Div. Engr. 3rd	Division
L. B. Thrasher	Div. Engr. 4th	Division
A. W. Kinney	Div. Engr. 5th	Division

Accounting Division

S. L.	WaltersAuditor
Bettie	V. HerringBookkeeper
	Smith JonesBookkeeper
W. A.	WilliamsBookkeeper

This magazine is edited in the offices of the State Road Department, Tallahassee, and published monthly. Subscription rate, one dollar per year. Permission is granted to republish, with proper credit, the matter contained herein.

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B. A. Meginniss, Attorney for the Department, Editor and Business Manager

Volume II August, 1925

Number 9



THE NEW CHAIRMAN

Effective July 25th, Dr. Fons A. Hathaway of Jacksonville, became member and chairman of the State Road Department succeeding Judge Henry B. Philips.

To introduce Dr. Hathaway to the people of Florida is a work of supererogation, but for the benefit of those of our subscribers living in other States and countries, perhaps some word of presentation is wise.

The new Chairman of the State Road Department is a native Floridian, having been born in Holmes County in 1880. He received his elementary education in the public schools of his native state, and in 1902 was graduated from the Florida State College, the progenitor of the present University of Florida, with the degree of Bachelor of Arts. He immediately devoted his energies to the cause of education, serving with distinction as teacher, principal of high schools, and finally being called to the responsible position of Superintendent of Public Instruction of Duval County in which he rendered distinguished service until the first of the present year. Dr. Hathaway has long been regarded as one of the foremost educators of the State, and in recognition of his outstanding achievements along these lines, the University of Florida conferred upon him the degree of Doctor of Laws.

When Governor John W. Martin was elected Chief Executive of Florida, his first act was the appointment of Dr. Hathaway as his private secretary, an appointment both popular and wise, and the present chairman served in that capacity until called by the Governor to assume the responsible duties of Chairman of the State Road Department. His selection for the post which he now holds was entirely without his solicitation and was made in pursuance of the Governor's belief that he would fill the position with credit to himself and to the administration.

Capable, energetic, conscientious and able, there is every reason to believe that the new chairman will bring to his new position those qualities and the distinguished ability which have characterized all his public service. While his whole public life up to the beginning of this year was spent in educational service, he is not a stranger to matters dealing with contracts for public work. During his tenure of the office of Superintendent of Public Instruction of Duval County, he financed, let and carried through contracts for millions of dollars of public improvements and buildings, and the works themselves testify to his faithful discharge of that trust.

May a word of personal allusion be permitted this once? The association and friendship existing between the new Chairman of the Road Department and the editor covers a period of many years—more years than we like to consider although both are still young men. This friendship began at the old Florida State College when both were students there in the days when (affectionately so-called) "Albert Aleck"

CHAIRMAN'S COLUMN



DR. FONS A. HATHAWAY,
New Chairman of the State Road Department of Florida.

BY WAY OF GREETING

Having been appointed a member of the State Road Department, and chosen its Chairman, I am glad to avail myself of the opportunity offered in the pages of Florida Highways to state in general terms the policies which will be my guide in the prosecution of my duties.

Recognizing the fact that the State Road Department was created to serve the people of the whole state and impartially, it will be my steadfast purpose to lend whatsoever influence I may have on the Board in the direction of making the Department in all respects an all-Florida institution, its members functioning collectively for the entire state.

Sectionalism in politics, thought and action must pass if our wonderful and glorious state is to take her proper and rightful place among her sister states. We must, therefore, complete, and as speedily as funds, material and labor will permit, the great trunk line roads designated by the Legislature. To accom-

plish this task within a reasonable time will require the concentration of the entire resources of the State Road Department. The Legislature, and wisely, has not left the designation of roads to the Department, but has assumed that responsibility itself. There need not be any misunderstanding or confusion; it remains for the State Road Department to carry out the instructions of the Legislature, and this will be

The State Road Department is by far the largest department in our State Government, spending more money than any other and its operations affecting every citizen of the State.

It will be the policy of the present Chairman of the Department to furnish the people, through daily and weekly papers and Florida Highways, information with reference to the operations of the Department. The Board will appreciate at all times the cooperation of the people of the state, to the end that our State Road Department may accomplish the task ahead.

MARION COUNTY'S MODERN HIGHWAYS

(Continued from page 3.)

The types of construction insisted upon in this program are governed by State Road Department standards for workmanship and materials. In carrying out the work, plans and profiles are drawn up and full data for the guidance of the Superintendents is issued from the office.

All nine projects are new work over old routes or entirely different locations, and include clearing of a sixty-six foot right of way, grading to quantities approximately averaging five thousand cubic yards per mile, lime rock base seventeen feet wide and six inches thick, compacted, road bed thirty feet wide, and an asphaltic surfacing consisting of two courses of oils and slag, all drainage features. Originally the Projects No. 7 and No. 8 were to be of the above type but sandlelay surfaced. It is now proposed to hard-surface them.



View at North end of Project No. 5, Ocala to Alachua County Line, State Road No. 31, Showing Completed Surfacing.

Construction was started on this program August 1st and in scheduled order all nine projects got under way. Two projects, namely No. 1 and No. 5 are entirely completed. From the record of progress and the actual cost of construction to date, the schedule of two years for completion of the program of 138 miles within the cost prescribed, it is safely estimated that the bond issue will be highly success-

ful from the standpoint of adding this mileage of modern highways at low cost.

The State Road Department's connection in the County will add about 12 miles on State Road No. 5 and about 44 miles on State Road No. 2, which gives a total of 194 miles of modern highways in the county, not including a considerable mileage of secondary roads which will sooner or later be brought up to the standard of the new highways. The funds from a previous bond issue were devoted to construction of the State's trunk lines, with their financial aid.

Methods of construction on the various projects include Convict as well as free labor on clearing the rights of way, wheeler outfits on the heavier road bed excavation, tractor crews on lighter grading and hand or "station work" according to its fitness. major equipment of the County in carrying out this program includes two quarry units with trucks, also a drag line outfit for stripping lime rock pits, and an asphaltic oils pressure distributor. The equipment is valued at approximately \$150,000.00 and that which was purchased under this bond issue is carried on a rental basis. Each project is charged with the rental of the equipment that it uses each month, and charged according to whether it was used in grading, laying base or surfacing or to camps. amount of equipment paid for but not charged to a project at this time is small. Overhead expense is prorated and charged to the project that is being constructed during that month. All items of cost are so accounted for in a unique system formulated in this office.

The organization as perfected by the County includes its Engineering, Construction and Administration Departments. The subsidiary departments are engineering, supervision and equipment shops. The loyalty of its personnel is noted. Full records of progress are charted. Material arrivals are posted and a thorough inter-communication with all jobs is maintained. The Commissaries are accurately accounted for and run mainly for the convenience of employees. All purchasing is done on a competitive basis locally where possible. Field engineering includes among other things the location of frame work and preparation of quarry sites to receive the machinery from quarry units in advance of its arrival, thus avoiding the delay in setting up quarry trestle, engine house, bins, etc., after the machinery arrives, by having an extra unit of houses, etc. The work is unusually well planned with the view of economy in time and money. The schedule of the various outfits of construction dove-tails into one another so that the minimum of time is lost between the different operations.

The highway system in Marion County as shown on the sketch above is laid out to make the most important connections with cross-state highways running both north and south and east and west, with other routes to shorten distances into the County seat from productive parts of the County, and adjoining counties. This is the type of modern highways that Marion County approves of and will continue to build.



View on Project No. 5, Ocala to Alachua County Line, State Road No. 31, South of Citra, Showing Completed Surfacing.



View at Marion County Quarry No. 2 on Project No. 4, Near Williston, Florida.

EDITORIAL—THE NEW CHAIRMAN

(Continued from page 4.)

Murphree, "Pie" Williams, "Old Buke" Buchholz, "Go-at-it-Once" Bierly and others were members of the faculty and were making their first impress upon the minds of the youth of the state. The friendship has continued unabated through the years, and this personal reference is pardonable only because it is evidence that the editor is writing not some formal, platitudious introduction, but is writing facts which

he knows intimately and well. The editor knows that Dr. Hathaway's administration of the affairs of the State Road Department, the largest agency of State Government, will be characterized with the same ability, faithfulness and distinction which have marked his whole public life.

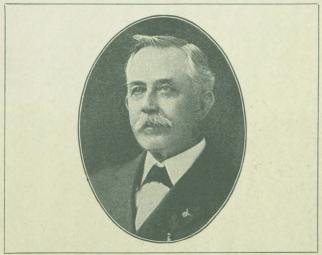
We present his photograph in another column, as well as his foreword under our department "Chairman's Column". From month to month, we shall present his views on phases and problems of the Department through this medium.

JUDGE HENRY B. PHILIPS—AN APPRECIA-

Only July 23rd, Judge Henry B. Philips retired as Chairman of the State Road Department, after a service of practically four years during which the road construction programme in Florida advanced from a bare beginning to its present magnificent proportions.

It is fitting and in direct line with our inclination that we should record our appreciation of the large part which Judge Philips has played in the accomplishments of the last few years, and to extend to him our heartfelt wishes for happiness, prosperity and success in his future endeavors.

No man ever brought to public service a more consecrated devotion than Judge Philips carried into his work for the Department. He was and is deeply and profoundly interested in the construction of a great system of roads in Florida, and his contribution to that cause will be writ large upon the pages of its history.



In the Department, he commanded and holds the esteem and affection of all its officers and employes and he retires with the satisfactory consciousness of a hard duty well and faithfully performed. There is always a feeling of sadness in the severing of happy association, and we shall miss the kindly and fatherly interest which "the Judge" took in all his associates. But we extend to him through these pages assurance of our continued affection, love and esteem, and we wish for him that measure of happiness which his sterling character and distinguished service so richly merit.

The cordial relations which exist between our new chairman anad the former incumbent is evidenced in the interchange of correspondence which appears on this page.

JUDGE PHILIPS RETIRES—DR. HATHAWAY ENTERS

Announcement is made of change in the office of Chairman of the State Road Department. Judge H. B. Philips, for four years chairman of the Department, was succeeded on July 25th by Dr. Fons A. Hathaway of Jacksonville, who has entered upon the discharge of his duties as such.

The cordial relations which exist between the retiring chairman and the new incumbent are evidenced in the correspondence which passed between them on the occasion of the change, the letters being as follows:

Judge Philips to Dr. Hathaway

Tallahassee, Florida, July 25, 1925.

Dr. Fons A. Hathaway, Tallahassee, Florida.

Dear Doctor: I understand that the Governor has appointed you a member of the State Road Department to succeed me, and that you will probably be named by the Board as Chairman of the Department. I further understand that there will probably be a meeting of the Board on Saturday, and at that meeting you will probably be named as Chairman to succeed me in that position.

I am writing to say that so far as I know only cordial relations exist between you and me. Since I trust that these relations will continue in the future, I am now tendering this offer of cooperation with you in the discharge of your duties. If at any time I may be of assistance because of my knowledge of existing facts in relation to the Department, I shall be very glad to render you any assistance I possibly

Yours very truly, H. B. PHILIPS.

Dr. Hathaway's Reply

July 28, 1925.

Judge H. B. Philips, Tallahassee, Florida.

My dear Judge: I want you to know that I appreciate very much indeed your very kind and cordial letter of the 25th instant. I wish to assure you that

(Continued on Page 11)



State Road No. 3, Project 595-A, Volusia County.

Contracts Awarded by State Road Department January 1, 1925-August 4th, 1925

The Reorganization of the Department

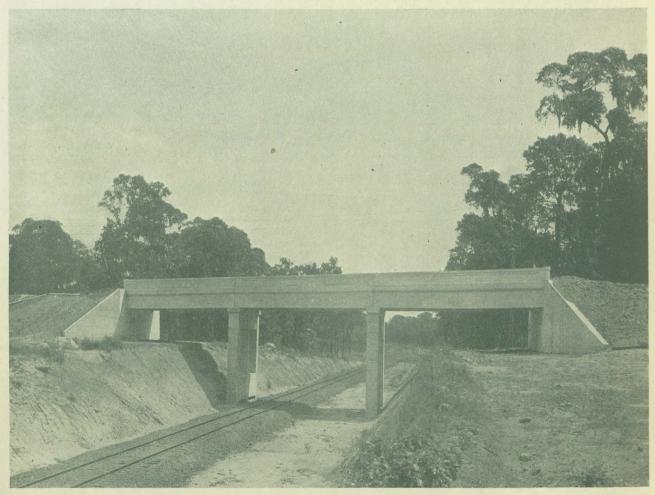
Elsewhere in this issue we chronicle the change in the Chairmanship of the Department, Dr. F. A. Hathaway having succeeded Judge H. B. Philips.

On August first, Mr. J. Harvey Bayliss of Pensacola succeeded Mr. William M. Corry as member of the Department from the Third Congressional district, having been appointed by Governor Martin upon the resignation of Mr. Corry, which took effect on that date.

The new member, although young in years, being barely 35 years of age, has long been prominent in the business and political life of West Florida, and is and has been for some years past mayor of Pensacola. His appointment by Governor Martin is a recognition of the high class of public service which he has rendered, and he will bring to the Department all the enthusiasm and ability which have so markedly characterized all his public relationships.

Mr. Corry, whom he succeeds, served efficiently as member of the Department for nearly three years, having been appointed in October, 1922. It is doubtful if there was ever a more universally popular member than Mr. Corry. His geniality, his unfailing courtesy and consideration for all with whom he comes in contact, together with a passionate devotion to the duties of the office which he filled, endeared him to his associates in a peculiar degree.

To the new member we extend a cordial greeting and our hope and belief that he will, in the discharge of his duties, add fresh laurels to his already long list of notable achievements, and to the retiring member we present assurances of our continued love and esteem with best wishes for all happiness and prosperity.



A concrete overhead crossing over the Atlantic Coast Line Railroad track near Lowell. This is on Project 43, Road 2, Marion County, and is the first concrete crossing of this kind constructed by the State Road Department in the State. It was constructed under the terms of the agreement reached with the railroad companies in 1924, and half the cost is borne by the railroad company.

Note the space left for double tracking. This policy is being adopted in almost every instance, for the railroads, as well as the State Road Department, are looking well into the future.

FORTY-FIVE-MILE SPEED LAWS ARE HERE

Florida, which recent abolished inheritance taxes, has now introduced another innovation to attract tourists. Governor Martin has just approved a bill which permits motorists to run forty-five miles an hour in country districts, twenty-five miles an hour through residence sections, and fifteen miles through business sections when cars weigh less than five thousand pounds. For heavier vehicles, the limits are thirty, fifteen and ten miles an hour. In the future traffic officers and highway police, outside the corporate limits of municipalities, will be required to wear uniforms and badges of authority.

The application of this new law and the raising of speed limits will be watched with interest by motorists everywhere. One reason for the passage of this law was a desire to outwit the unscrupulous road-side judges and "constables" who preyed upon unsuspecting tourists. Florida was infested with this unsavory gang of highway buccaneers. The higher speed laws will make it harder to waylay motorists,

who will, it is believed, be inclined to keep within the new and generous limits provided.—American Motorist.

JUDGE PHILIPS RETIRES—DR. HATHAWAY ENTERS

(Continued from Page 8)

I reciprocate in the fullest measure the spirit of cordiality reflected in your communication. You were my friend and supporter in our old County of Duval in my bond elections and school-building programs

in my bond elections and school-building programs In succeeding you as Chairman of the State Road Department I shall appreciate any cooperation and all the support that you may have time to give me. I shall not hesitate to call on you.

Again thanking you for your very fine letter, which I took occasion to read to the Board at its meeting Saturday morning, I am

Yours sincerely,

FONS A. HATHAWAY.



THE OLD AND THE NEW.

This short revision in alignment and grade will save the railroad company large sums in transportation maintenance and upkeep in a short period of time. This reverse curve on a bad grade is now eliminated. This overhead bridge eliminates a very dangerous grade crossing on Road No. 2 between Ocala and Gainesville. The expense of this change was borne by the Atlantic Coast Line Railroad Company, the Federal Bureau of Public Roads, the State Road Department, and Marion County.



State Road No. 2 Through Micanopy.

Federal Aid For Highways Is Under Fire

Federal aid for highways is under fire. Much of the opposition comes from eastern states. Some eastern Senators want Federal Aid discontinued. Even President Coolidge is only lukewarm on the subject and in his Memorial Day address said Federal Aid for highways had led to some extravagance. But the opposition does not all come from the East; there is some of it here in Indiana. One Indianapolis newspaper has been running editorials advocating doing away with federal aid for highways.

A very good general statement on the subject is the following, just issued by the American Automobile Association:

"The question of Federal Aid for highways, the necessity or lack of necessity for it has caused considerable discussion among Federal aid State officials during the past year. It is believed that in the minds of various Eastern Statesmen there is a belief that the Federal Aid program, as carried out under the direction of the United States Bureau of Public Roads, should be abolished.

"The first definite attack upon the Federal Aid system was made by Governor Ritchie of Maryland at the recent Conference of Governors held at Poland Springs, Maine. Governor Ritchie's contention was that in view of the fact that the amount paid by the States to the Federal Government is based on income, those States paying heavy income taxes receive back a smaller percentage in Federal Aid than do the States whose income taxes are smaller. This he claimed placed the larger States at a distinct disadvantage. To prove his contention Governor Ritchie presented figures to show that Nevada receives in Federal Aid 216 percent of the funds paid by the State into the Federal Treasury while New York State gets back less than 1 percent of the taxes it pays. He also showed that three other States, New Mexico, North Dakota and South Dakota, receive more than they pay.

"That this form of argument is one-sided and

"That this form of argument is one-sided and basically unsound is readily appreciated. It is true that Nevada gets back more in Federal Aid than it pays in income taxes but it is also true that approximately 90 percent of Nevada is Government owned land and that the benefit from the highways in that State is enjoyed mostly by tourists from all over the country, a great majority of them coming from the East. This latter fact is also true of New Mexico, South Dakota and North Dakota. It is not the policy of the Bureau of Public Roads to approve any road

construction that would only benefit one particular community but rather to approve and encourage the construction of highways which will, through their connections, make available to the national public the means of intercourse both social and commercial between all the States of the United States. This is essentially a Federal function and should as such be left undisturbed.

"In this day of development of automotive transportation with its accompanying commercial possibilities the benefits that may be derived cannot be confined within the boundaries of any one State. A policy that would result in building a wall around any one State or group of States should be discouraged for, as Governor Whitfield of Mississippi said, State lines have long been obliterated in industrial matters and the development and maintenance of highways with their consequent promotion of commerce are the concern of the nation.

"Why the idea should prevail that percentage of distribution of Federal Aid should be based upon the amount of income tax paid into the General Fund of the Federal Government is a matter for wonderment. In citing the cases New Mexico and Nevada apparently consideration was not given to the fact that much of the income derived from the natural resources of those two States is received by eastern capitalists and reflected in the income tax returns of their place of residence.

"It seems selfish that because of the fact that some of the Eastern States have nearly completed their construction program they should be in favor of discontinuing Federal Aid. The Federal Good Roads Bill authorizing appropriations for 1926-27 met with the opposition of five Senators when it came up for vote in the upper Chamber. Two of these Senators were from Pennsylvania. Senator Reed of that State offered an amendment to reduce the authorization considerably. He said, 'The sooner the Federal Government gets out of the business of State subsidies the better for all concerned.' A statement such as this

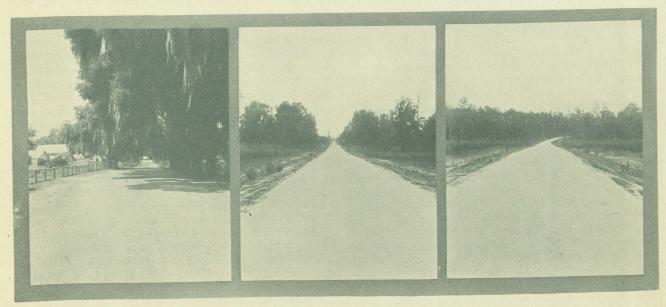
can only lead to the belief that very little thought had been given to the subject before an opinion had been expressed. Pennsylvania occupies a most favorable position to benefit by a broad national good roads program. That State produces ten percent of all the crushed stone used for paving roads, eleven percent of all paving sand, and twenty-two percent of the cement. Through its extensive petroleum refining industries it produces nine percent of the gasoline. Pennsylvania also produces thirty-nine percent of all the steel produced in the United States, one-tenth of which is used in the construction of motor vehicles.

"Other examples could be drawn to emphasize the fact that the development of good roads through Federal Aid does not benefit any one State but rather reacts to the benefits of all the States concerned. There is, however, better grounds for argument. No reasonable minded person can deny the part the railroads have played in the growth of our country, nor fail to recognize the fact that in the United States railroad transportation has reached its highest development. This development has been due in no small part to the cooperation and aid extended by the Federela Government. When it is realized that the United States Government gave to the railroads of the country 158,293,736 acres of land from the public domain as an encouragement to transportation development the present amount of Federal Aid for the construction of highways is little enough to expect as encouragement for the development of our newest infant in the transportation field.

"This Association has repeatedly taken the stand in favor of the Federal Aid program, the latest expression of sentiment being advanced at the Annual Meeting held in Atlantic City, June 29th-30th, when it was unanimously voted through resolution that the Federal Aid policy should be continued.

"It will be an action to be deplored if the Federal Aid program is discontinued before highways in the undeveloped sections of the country, notably in the South and West, can be constructed under this plan."

—Indiana Highways and Motors.



Three additional views on Marion County's System of Modern Highways



Project 519, Road No. 5, Near Ellenton.

The Public and Highway Transportation

By the Hon. W. M. JARDINE, Secretary of Agriculture, Washington, D. C.

Within the last two centuries there have been developments in transportation facilities which have been recognized by the public as improvements over pre-existing modes of travel. New users of the highways have sprung up from time to time who have found a way to move persons and goods more expeditiously, more cheaply or with greater comfort. The flying stage coaches of early days constituted such an improvement over the pack horses that preceded them, but they were not so recognized by the owners of pack horses. The railroads at a later time wrought much greater improvements; and if you think that they were essentially different from the earlier improvements merely because they were privately controlled, I call your attention to the fact that practically all important roads of the time when the railroads were coming into existence were privately controlled and financed by tolls. Certainly the railroads were acclaimed by the public with the same enthusiasm which greeted the appearance of the stage coaches; and certainly, also, they met the same resistance from the stage coach operators and others, whose business interests were affected.

The latest of the "new users" is the motor vehicle.

Its reception by the public has been of a kind with the welcome extended to all the earlier improvements in transportation facilities. There is no doubt of the warmth of that reception. In less than 20 years the number of motor vehicles has grown to more than seventeen million. But, along with the praises that have been heaped upon it we have the murmuring of those who fear that it will lead us to no good end. Now we have reached the stage where the suggestions for restrictive regulation have begun to multiply, some of which are humorously similar to those which sought to curb the operation of the flying coaches.

I have faith that in the long run the motor vehicle will find its place in the whole scheme of transportation naturally and inevitably as have all the earlier "new users" of the highways; but we may help it to find that place by wise restraint of its more enthusiastic proponents and by refraining for regulation which may have a crippling effect.

The public is not yet in a position to define definitely its field of operation with respect to those of the older transport agencies. The actual division of the field can best be made by the representatives of the various agencies on the basis of facts established by

an unbiased study of their relative service values. In such conferences as this in which you are now engaging it should be possible to reach agreements which will result in the development of all systems of transportation on a basis of mutual cooperation. As a basis for your discussions, however, I should like to urge upon you the desirability of seeking out the facts of the situation. Mere opinions are seldom a reliable basis, because so many of the things we think we know are simply not so.

In the Department of Agriculture we have come to feel the need of facts very keenly, because we have had imposed upon us by Congress the responsibility of administering the Federal highway act. We take that responsibility very seriously. As we view it our job is not merely the building of a large mileage of road. We look upon the roads as the means to an end—not as the end itself. The end is the improvement of transportation in the United States.

To serve as a basis for the improvement of the roads, in cooperation with the State highway departments, we have made very complete and careful surveys of the use and the limits of use of the highway systems of Connecticut, Maine, Pennsylvania, California, Tennessee, and Maryland. Recently in cooperation with the Board of County Commissioners and Mr. Quinlan we have completed a similar, but even more intensive investigation here in Cook County. We are going farther. We intend to examine the conditions in other states as rapidly as our forces can handle the work.

On the basis of what we have already found I feel that I can talk to you as one having authority in regard to some of these matters on which there are so many opinions. In other words, we have the definite facts.

One thing we know very definitely—there is no basis for the fear that the motor truck is going to compete seriously with the railroads. The facts we have found in all our surveys are sufficient to convince me. The truck has found its place of the short haul, and it is not taking over any business that the railroads can do as well or better.

In Connecticut we have found that nearly 40 per cent of the total tonnage is moved less than 10 miles and nearly 70 per cent less than 30 miles. The movement which runs to 100 miles and over is largely a movement of furniture and household goods in which promptness of delivery and a minimum of handling are the controlling elements. In that state we have found that two factors are, in general, responsible for the transportation of commodities by truck over 30 miles. The first is the lack of the rail service which would enable shippers to obtain rapid and dependable transportation of l. c. l. freight. The second is the one I have mentioned, that certain types of commodities, notably furniture, but including also groceries, meat and vegetables distributed from the cities to the smaller towns, are in their very nature adapted to motor truck shipment.

Jump clear across the country to California and you find the same situation. The difference is one of degree only. There we find that 25 per cent of the total tonnage is hauled less than 10 miles and 60 per cent less than 30 miles; and the tonnage that is hauled more than 70 miles is less than 20 per cent.

The reasons for the greater long distance movement are fairly clear. They are the greater distances between cities and the less complete service afforded by the railroads.

Come back to Cook County and you find the same story, again differing only in small degree: 24 per cent of the movement is less than 10 miles; 75 per cent less than 30 miles; and less than 3 per cent moves farther than 100 miles.

These are the facts in regard to the length of motor truck hauls in three typical areas in three widely separated sections of the United States. They are not arm-chair opinions. Our observers have gone out on the roads; they have stopped the trucks and asked the drivers where they were going and where they came from. We stand on these figures, and I think they prove very conclusively that the truck is not invading the long-haul field.

There was a time, no doubt, just after the war when enthusiasts thought they could see the truck taking the place of the railroad completely—at least they talked that way. But that time is past, and the reasons for its passing is that the long haul doesn't pay—and truck operators know it doesn't. It has been tried—we seldom learn anything except by bitter experience. One of the most reputable haulage companies in the United States tried it, and kept a careful record of the costs, and the result is sufficiently discouraging. They operated a fleet of 35 trucks averaging 3½ tons capacity between Buffalo and Erie and Erie and Cleveland. The distance is about a hundred miles in each case.

They based their rates on the railroad tariff—a little more for the low class commodities, a little less for the high class, but averaging fairly close to the railroad rates. And, on the basis of a year's operation, with \$200,000 gross revenue, their net loss was \$14,000.

But we have not limited our investigations to the study of the length of haul. We have weighed the trucks as well as counted them, and we have found out a good many other things about them, such as the kinds of commodities they carry and the type of service they render.

The service is distinctly a service of distribution In the main it is a service which from centers. neither the railroads nor any other inflexible carrier limited to a fixed line of travel—whether it be a rail line or a water line—can render. It is a service which does not aim to move large bulk day after day and year after year between the same points. Its loads are picked up everywhere and hauled anywhere within the short-haul limit. It supplies materials for building operations today at one point, tomorrow at another. It distributes the daily bread directly to homes over an entire county. It supplies country stores with fresh meats, vegetables, with anything that needs to be fresh to be good. It collects milk from hundreds of farmers within a 50 mile radius of the cities and brings it to the city milk plant for pasteurization and redistribution. It is used by farmers collectively to send their truck to market, and get back their city purchases. Within the shorthaul limits it is taking some of this business away from the railroads, but it is taking it because it can perform better service. Nothing can prevent it from taking that business, and the railroads should be glad

to see it go because it never has really paid the rail-

Perhaps I may illustrate how the highways are being utilized by a brief reference to the situation we have found in respect to the transportation of milk. We have made special studies of the milk movement in the Chicago, Baltimore, Cincinnati, Detroit, Indianapolis, Milwaukee, Philadelphia, St. Paul and Minneapolis markets. In all these markets, with the exception of Chicago, Philadelphia and Baltimore, the studies show that approximately 90 per cent or more of the milk now received is transported to them by motor truck instead of by railroad. Philadelphia receives only 20 per cent of its milk by highway, Chicago 32 per cent, and Baltimore 45 per cent, and in each case the lower percentage is probably accounted for by the fact that these larger cities, because of their heavy demands must draw their supplies from an area so large that the shipping distances become too great for motor truck hauling.

Since we are in Chicago suppose we take the delivery of milk to this city as an example. In 1910, 94 per cent of the milk used in the city was transported by steam railroad, 2 per cent by electric railroads, and 4 per cent by wagons. Since then the growth of a circle of suburban towns and subdivisions around the city has gradually pushed the dairy farms back beyond a wagon's haul of the city, so that today none of the milk used by the city is delivered to it by wagon. But the motor truck now brings in 32 per cent of the city's supply and the percentage transported by the 26 steam railroads has been reduced to 68. Electric railroad shipments have ceased.

Mere percentages, however, do not make clear what has taken place in this 15-year period of changing transportation methods. Although the percentage of milk delivered to Chicago by rail has dropped from 94 to 63, the quantity delivered remains today almost exactly what it was in 1910; and although the railroads have lost to the motor truck a considerable part of the business within the short-haul zone of 50 miles, they have gone beyond the normal trucking radius to develop the new producing territory which the growth of the city demands. There has been a considerable extension of milk mileage by railroads operating in territories where motor truck competition is especially keen.

From the standpoint of the producer the reasons which compel him to prefer the motor truck to the

railroad within the short-haul zone are:

First. That the motor truck gives a market outlet for milk produced in territories which formerly were too far removed from rail shipping points to be

reached by wagon.
Second. The motor trucks pass the producers' gate and furnish a complete service that can not be

duplicated by the railroads.

Third. The driver of the truck is the producer's agent from the farm to the city dealer, and performs a marketing as well as a transportation service.

Fourth. Shipment by truck reduces the number of handlings from half a dozen or more to only two.

The farmer loses fewer cans.

There is an estimated saving of 5 cents a hundred-weight on all milk trucked in by the elimination of the haul from the railroad milk platform to the city milk dealer.

And last, within the short-haul limits the motor truck makes possible an actual saving in time of delivery from the farm to the city milk plant of an hour or more by the reduction in handling and the elimination of the hauls to and from the railroad at the two ends.

Similarly, we find that the motor truck is used to a very large extent in the movement of livestock from the farm to the packing centers. In the Indianapolis market, for instance, it has been found that more than 30 per cent of the total receipts of hogs for the year are delivered by truck. Ten years ago such deliveries constituted only 5 per cent of the total receipts. Today within a 50-mile radius of the yards 90 per cent of all hogs raised are moved in by truck.

These illustrations, drawn from the facts as we find them in our surveys will serve to indicate to you the nature of the service that is being rendered by the motor truck. Although, in each case, they point to a transfer of business from the railroads to the highways, you will observe that in each case the business transferred is limited to a short-haul movement. Similar studies of the movement of non-perishable agricultural products, especially those which are shipped long distances in bulk, or the movement of the products of mines and forests, would reveal a different situation. Apparently the motor truck is finding its place very naturally. It has not yet shown an indication that it will ever function satisfactorily except on the short haul. But it is proving itself a valuable supplement to the railroads in the local field, and in the vicinity of the terminals.

I am glad to see that its usefulness in these fields is being recognized by railroad officials. I am especially interested in the experiments now being made by the Pennsylvania Railroad in which the motor truck is being used as a coordinated agency for the handling of local, less-than-carload freight. Operating on the zone-station principle by which full cars of package freight are shipped to the zone stations and from these delivered to the intermediate stations by motor truck, I am told that the company has been able to speed up its local package service and reduce by 75 per cent of the damage to goods in transit. In addition it is hoped that the selection of the zone station in such manner that the trains will not have to cross over against the stream of traffic will mater-

ially increase safety in train operation.

In the apparent success of this experiment by the Pennsylvania I feel that we have a hopeful indication of the more complete and harmonious utilization of the facilities of both the highways and the railroads which will enlist the support of all agencies in each field in the near future. The public demands better transportation, which means not only a cheaper movement, but more reliable service and more prompt delivery. It is convinced, I believe, that the motor truck operating over the public highways can be utilized effectively, in proper coordination with the railroads, to accomplish these ends. The growing utilization of the new vehicle must necessarily result in a transfer to the highways of some of the business formerly handled by the railroads. How important such transfers may become, and what will be the effect upon the older carriers remains to be determined, but we should bear in mind always the thought that these older carriers shall not be crippled in the process. The services which they must continue to perform are vital to the economic well being of the country. In their proper field they can never be displaced by any form of highway transportation yet developed, and their services in that field must not be rendered unprofitable by unregulated and unwise

competition.

There is one other popular idea I feel disposed to deny. That is the idea that motor trucks are destroying our roads. I don't know why it should need denial, but apparently it does. Look around you. Are the roads getting better or worse? Have we ever before had such fine ones or so many of them? Have we ever before had fewer of them in a state of disrepair? Well, there are now as many motor trucks using these roads as there were of all kinds of motor vehicles ten years ago, but the cost of the roads per ton-mile of traffic is far less now than it was then. This has been accomplished, first, by the really notable improvements that have been made in the design of highway surface; second, by the building up of efficient administrative and engineering organizations; and third, by the greatly increased use which far exceeds the increase in the cost of the roads. Even in the state of Maine, remote as it is from the centers of big business expansion, our surveys show that highway traffic doubled from 1916 to 1919; it doubled again from 1920 to 1924; and we confidently expect it to double again by 1930.

The idea that trucks destroy roads is a hangover from the war period when they were actually destroyed, for two very good reasons: First, because the heavier motor trucks—then comparatively new—were suddently released on roads which had not been built to accommodate them; and second, because at that very time the expenditure of money for highway maintenance was declared to be non-essential to

the winning of the war and discouraged.

The roads we are building now are built to accommodate the traffic they will be called upon to carry, as determined by detailed surveys such as I have described. And they are maintained. They wear out just as rails and locomotives and motor trucks wear

out; but they are not destroyed.

In the field of passenger transportation the public has already given abundant evidence of its intention. There is no arguing the meaning of the fifteen million automobiles now operating on the fast improving roads. The people want the kind of individual transportation which these vehicles supply. Doubtless a part of this service would otherwise be furnished by the railroads. There is evidence, indeed, that the passenger movement on certain branch lines of railroads may be so reduced as to be no longer profitable. But, in the main, I think it must be conceded that the automobile is functioning in a transportation field of its own, and is gratifying wants which could not have been met by the railroads.

Motor vehicles—both automobiles and motor trucks—which with the public highways constitute the facilities of modern highway transportation, do not need to plead for their place in the sun. Not long since they could perhaps be passed over as non-essential—a fad if you please. But not so now. The motor vehicles have given to highway transportation a new usefulness and the public has expressed its belief in them in the most powerful way it knows how—by the

investment of billions of dollars of its capital in the more than 15 million automobiles and more than two million trucks.

Cooperation and coordination are the keys to the maximum usefulness of the new highway transportation. They are, in fact, the prerequisites of improvement in our whole transportation system—and they are needed all along the line. Road builders and vehicle manufacturers must cooperate in order that the roads shall be built to carry the vehicles and that the vehicles shall not overburden the road. The road building authorities of the nation, the states, the counties and the municipalities must cooperate that the roads which know no political borders shall be

properly coordinated.

Railroad, waterway and highway transportation should be coordinated in order that each shall be developed to its highest point of usefulness without taking from another the functions which other can perform to the better advantage of the public. Shippers and officials of transportation agencies must cooperate to eliminate unnecessary handling and reduce the time and cost of transportation. And finally we must develop a spirit of cooperation between the public and those who are working to improve transportation whether it be railway, waterway or highway transportation, to the end that the public needs will be met to the fullest possible degree and that a fair return upon the invested capital shall be assured to the agencies of transportation.

(The foregoing address by Secretary Jardine was delivered at the Midwest Motor Transport Confer-

ence, held at Chicago, May 28, 1925.)

ROAD CONGRESS DELEGATES

Seven men have been named by President Coolidge as official delegates to the Pan-American Road Congress at Buenos Aires, next October. They are: J. Walter Drake, assistant Secretary of Commerce, chairman; Thomas H. MacDonald, chief, Bureau of Public Roads; Charles M. Babcock, commissioner of highways, Minnesota; F. L. Bishop, dean, School of Engineering, University of Pittsburg; Frank Page, chairman, North Carolina State highway commission; William E. Hull, member of Congress, from Peoria, Illinois; Dr. G. A. Sherwell, secretary-general, Inter-American High Commission.

The conference is scheduled for October 3 to 12, and is the outgrowth of a request for such a meeting, passed by delegates to the fifth international conference of the Pan-American States at Santiago, Chile, in 1923. The conference was originally scheduled for May, but delay of Congress in passing necessary appropriation to cover expenses of official delegates resulted in delay in arrangement of program. When the bill appropriating \$15,000 for expenses was finally passed, it was deemed best to postpone the meeting until fall.—Western Highways Builder.

For Safety's Sake

Landlady—"You always sing while you're taking your morning shower, Mr. Gay. Why do you do that?"

Boarder-"The bathroom door won't stay locked."

TRANSACTIONS OF THE DEPARTMENT

(Continued from Page 2)

Whereas, Road No. 14 forms a part of the Federal

Seven Per Cent System of Florida; and

Whereas, the State Road Department is desirous of obtaining Federal funds to aid in the construction of that portion of Road No. 14 from Putnam County line to Gainesville, in Alachua County; Now, Therefore, Be It

Resolved, That the Chairman be and he is hereby authorized to submit plans and specifications to the Bureau of Public Roads and make application for Federal Aid for said project; and the Department does hereby pledge that necessary funds will be provided by said Department for meeting Federal Aid on said proposed Federal Aid project; and Be It

Resolved, That the State Highway Engineer be and he is hereby directed to commence the construction of said road as soon as all necessary plans are completed.

Madison County-Road 9

Upon motion of Capt. Hillman, seconded by Mr.

Green, the following resolution was adopted:

Be It Resolved, That the Chairman be and he is hereby authorized and directed to make application to the Federal Bureau of Public Roads to designate, approve and include in the Federal Seven Per Cent System of Florida, out of the forty-five miles of roads available and undesignated in Florida, that portion of State Road No. 9 between the City of Madison and the George State line, approximately twelve miles.

Hamilton County-Road No. 2

Upon motion of Capt. Hillman, seconded by Mr. Green, the following resolution was adopted:

Be It Resolved, That the Chairman of this Department be and he is hereby authorized and directed to proceed at once with the construction of a rock base with surface treatment on Project No. 19, Road 2,

Hamilton County; and Be It Further

Resolved. That said Chairman be and he is hereby further authorized and directed to advertise for bids on or about October first of the present year and let a contract consequent thereon for the construction of a rock base with surface treatment on Project 31, Road 2, Hamilton County, Florida; Be It Further

Resolved, That this Department does agree and pledge that it will during the first half of the year 1926 commence the construction of a rock base with surface treatment on that portion of said Road No. 2 in Hamilton County between Jasper and the Georgia state line; Be It Further Resolved, That the Department does agree and

pledge that it will maintain all said sections of said road until such time as the Department is in a position to place a permanent wearing surface thereon;

Be It Further

Resolved, That a copy of this resolution be transmitted to the United States Bureau of Public Roads as and for the assurance of this Department with respect to its programme for stage construction on said portions of said road and the maintenance thereof by the Department until such time as the permanent wearing surface can be placed thereon.

Location of State Roads

Upon motion of Mr. Green, seconded by Mr. Schil-

ling, the following resolution was adopted:

Resolved, That the Chairman be and he is hereby authorized to locate any State road when, in his judgment, necessity for such location arises.

Polk County

Upon motion of Mr. Green, seconded by Capt. Hillman, the following resolution was adopted:

Whereas, the Department is desirous of constructing that part of State Road No. 17 between Hillsborough County line and the east side of Section 14, Township 28 S. of Range 23 East, and

Whereas, the Board of County Commissioners acting by and under express legislative authority, has offered to advance to this Department the money necessary to construct said road under the conditions hereinafter set out; and

Whereas, the Department desires to accept the tender of said County Commissioners of Polk County,

Florida;

Now, Therefore, Be It Resolved by the State Road Department of the State of Florida, That the Chairman and Secretary be and they are hereby authorized to execute and deliver for, in the name of and on behalf of this Department an agreement to and with said Board of County Commissioners, in the words and figures following, to-wit:

This Agreement, made and entered into this the day of July, A. D. 1925, by and between the State Road Department of the State of Florida, party of the first part and the Board of County Commissioners of Polk County, Florida, party of the second part,

Witnesseth:

Whereas, the said part of the second part is desirous that the said party of the first part construct and maintain as soon as practicable that portion of State Road Number 17 from the Hillsborough County line into the City of Lakeland, Florida, a distance of five miles, approximately; and

Whereas, the said party of the first part is willing

and anxious so to do; and

Whereas, said party of the first part, due to lack of funds, is unable at this time to construct said road unless the funds therefor are advanced to it; and

Whereas, the said party of the second part is willing to advance the necessary funds to said party of the first part for the construction of said road with the understanding that said funds so advanced will be refunded to said party of the second part by said party of the first part not later than April 15th, 1926;

Whereas, an Act was passed by the Legislature of the State of Florida at its regular 1925 Session, authorizing said party of the second part to issue and sell interest bearing time warrants of the County of Polk in a sum not to execed One Hundred Seventyfive Thousand Dollars (\$175,000.00) for the purpose of raising funds with which to construct that portion of the State Road Number 17 from the Hillsborough County line into the City of Lakeland and authorizing the said party of the second part to turn over the funds derived from the sale of said Time Warrants to the State Road Department, provided the said State Road Department will enter into a contract with the Board of County Commissioners of Polk County, Florida, to construct said road and to reimburse the County of Polk for the amount of money advanced for the construction thereof, within a time fixed by said contract;

Now this agreement witnesseth that the said party of the first part for and in consideration of the premises as well as of the sum of One Dollar (\$1.00) to it in hand paid by the said party of the second part, hereby covenants and agrees that it will upon receipt of the proceeds of the sale of the Time Warrants authorized by said Legislative Act and as soon as practicable thereafter, construct that portion of State Road Number 17 from the Hillsborough County line to the east side of Section 14, Township 28 S. Range 23 E, according to plans and specifications to be furnished and prepared by said party of the first part, and north of the right of way of the Atlantic Coast Line Railroad Company, on substantially the location shown on the accompanying and attached blue print, and it further covenants and agrees to repay to said party of the second part on or before the 15th day of April, A. D. 1926, the said sum of money advanced or turned over to said party of the first part for the construction of said road.

In Witness Whereof, the said party of the first part, after a Resolution adopted and entered upon its minutes at regular quarterly meeting authorizing the execution hereof, has hereunto set its hand and seal,

the day and year first aforesaid.

STATE ROAD DEPARTMENT OF THE STATE OF FLORIDA

	By
	Chairman.
	(Seal)
ATTES	T:Secretary.
	Secretary.
	Chairman.
	Chairman.
	Members of Board of County Comissioners, Polk County, Florida.
	(Seal)
Signed, ence:	Sealed and delivered in our pres-
ATTES	
ATTES	Clerk Board of County Commissioners, Polk County, Florida.
Signed, ence:	sealed and delivered in our pres-

THE MANY MILES OF CONCRETE HIGHWAYS IN FLORIDA PROVE THE SUPERIORITY OF THIS TYPE OF PAVING



STANDARD SINCE 1898

Phoenix Portland Cement Company

PLANT NO. 1 1,000,000 bbls. annually Nazareth, PLANT NO. 2 1,500,000 bbls. annually Birmingham, PLANT NO. 3
(To be constructed)
New Orleans,
La.

Jack Camp, Presiden E. F. Fitch, Vice-President.

Clarence Camp, Sec. and Treas.

CAMP CONCRETE ROCK COMPANY

Jacksonville

Ocala

Tampa

Producers of High Grade Washed, Crushed and Sized

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Capacity 1,500 to 2,000 tons daily. Quarry four miles east of Brooksville on Atlantic Coast Line Railroad. Our product has been approved for all structural concrete and bituminous macadam.

Sales Offices: 1011 Bisbee Bldg., Jacksonville, Fla. 312 Citizens Bank Bldg., Tampa, Fla.

Hillsborough County-Right of Way

Upon motion of Mr. Green, seconded by Mr. Schilling, the following resolution was adopted:

Whereas, the Department has surveyed and located State Road No. 5 in Hillsborough County, as is shown by plat of said location on file in its office; and

Whereas, said Department has found and determined, and does hereby find and determine that it is necessary, wise and expedient to secure, by purchase or condemnation, such real estate as may be necessary

to widen the right of way of said road;

Now, Therefore, Be It Resolved, That the County Commissioners of Hillsborough County be and they are here authorized and requested to secure for the Department, by purchase or condemnation, the lands necessary for said purposes; that is to say, a strip of land seven feet in width, parallel to and on the east side of said road, between stations 270 and 280, and strip of land seven feet wide on the west side of and parallel to said road, between stations 275 and 285, as shown by the plat of said survey, a copy of which is hereto attached, marked "Exhibit A" and made a part hereof.

Be It Further Resolved, That said County Commissioners be and they are hereby authoribed to use the name of this Department in any condemnation proceedings necessary to carry out the purposes of this resolution, or to proceed in its own name as

authorized by law.

Osceola County—Langston Construction Company
Upon motion of Mr. Schilling, seconded by Mr.

Green, the following resolution was adopted:

Resolved, That the State Highway Engineer is hereby authorized to take up with the Langston Construction Company the matter of extending the rock base from the end of Project 534 in Brevard County to Deer Park, in Osceola County, a distance of approximately one mile.

Levy County

Upon motion of Capt. Hillman, seconded by Mr. Green, the following resolution was adopted:

Resolved, That the Chairman is hereby authorized to proceed with the location of Roads 13 and 19 through Levy County, when requested to do so by the county, with the understanding that if the county does not construct said roads on the locations as fixed by the Department, said Levy County shall pay all expenses incident to making said survey.

Florida Highways

Upon motion of Mr. Schilling, seconded by Mr.

Green, the following resolution was adopted:

Be It Resolved, That the salary of the Editor of Florida Highways be and the same is hereby fixed at \$750.00 per annum, payable in equal monthly installments, such salary to be paid from receipts earned by the said magazine, and no part thereof to be paid at any time from Department, State or tax funds:

Be It Further Resolved, That the said salary shall be effective from January 1st, 1925.

Bay County

Upon motion of Mr. Schilling, seconded by Mr. Corry, the following resolution was adopted:
Whereas, Bay County has requested the State

Road Department to locate Road No. 10 in that County; also, to take over certain funds derived from a bond issue to apply on this road and to build the bridges across East and West Bay as soon as possible, Now, Therefore, Be It

Resolved, That this Department does hereby agree to make the survey of Road No. 10 in Bay County and build said bridges as soon as Bay County makes available said funds, the Department supervising the expenditure of these funds in the construction of this road and the bridges.

State Road No. 1—Tallahassee to Quincy

Upon motion of Mr. Schilling, seconded by Mr. Corry, the following resolution was adopted:

Resolved, That the Department will accept the location of Road No. 1 from Tallahassee to Quincy as will be marked out and designated by the engineers of the Department, the same to be submitted to the Bureau of Public Roads for approval.

Expense Accounts

Upon motion, duly adopted, the expense accounts of the members were approved and ordered paid.

There being no further business, the meeting adjourned.

HIGHWAYS AND THINGS LIKE THAT COL. HELZ BELZ

When I drive with The Wife On a Sunday Afternoon At a decent speed of somewhere Near Twenty miles an hour, And Some fool in a Ford Going thirty-five With seven people Depending on his skill in bending His flivver around every Other Car on the road, Streaks past me, I realize that the Turks Absolutely right When they say "Allah is great!" And I am going To write to Henry Ford And suggest to him That He equip his product With a rubber chassis That Really experienced drivers Can make Still shorter bends, Like A horse-shoe, And go Both ways at once. I THANK YOU. -Louisiana Highway Magazine.



F.A.P. S-34 (Mobile County, Ala.)—4 miles Slag Concrete paving laid 1925 by Joseph Fromherz, Inc., of New Or-



Road builders are getting 3800 lb. concrete and better with



This is the second important concrete road nearing completion in Alabama in which the contractors are using "Ensley Basic Slag" and establishing a new standard of strength.

Twenty-eight day tests of a designed Slag Concrete mix of 1;2.3:3.3 (F.A.P.100-A in Chilton County) averaged 4633 lbs. Similar tests made on the Mobile County project (which extends from Grand Bay to the Mississippi line near Pascagoula and is the standard 1;2;3 mix) averaged 3800 lbs.

1,255,000 Square yards

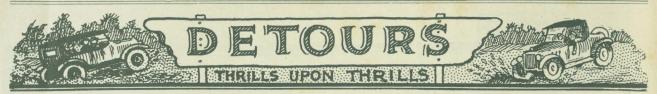
In recent years a total of 596,812 sq. yds. of Slag Concrete paving have been laid in Alabama, Georgia and Florida. Now under construction in Alabama 323.061 sq. yds; Georgia 261,656 sq. yds; Florida 73,571 sq. yds.

Details of these projects will interest every road builder who is striving for concrete of maximum strength. Write for them!

BIRMINGHAM SLAG CO.

ATLANTA BIRMINGNAMONTGON ORLAND





It's All in the Point of View

"Before you get one," writes S. H., "they are those confounded autos"; after you get one they are these darn fool pedestrians"."—Boston Transcript.

A Careful Invoice

A motorist, on a long trip, needed some water for his car. He pulled up in front of a farmhouses in a backwoods region, and had just started to make his request when a boy came around the corner of the

"Jim," asked the farmer, "did you drive up them cows like I told you?

"Sure, I did pop."
"Get 'em all up?"
"Yep."

"Count 'em?"

"Yep."

"How many was there?"

"One.

"That's right."—American Legion.

"I bought a car yesterday."

"What kind is it?"

"It's an Ash." "You mean a Nash, don't you?"

"No, Ash. A second hand Cole."

"Excuse me," she said, as she entered the country editor's office. "You editors are supposed to know everything. How should I treat sick bees?"

"With respect," was the answer.

The applicant for cook was untidy and insolent in appearance.

"Don't hire her," whispered Jones to his wife.

"I don't like her looks."

"But," remonstrated his wife, "just consider the reputation for cooking she bears."
"That doesn't matter," said Jones testily. "We doesn't want any she bears cooked. We don't like them."

The Lure of Golf

An old Scotchman and a youth had spent the whole day on the old golf links, and had had some remarkably close and exciting games. As they left for home the old man remarked:

"Hay, mon, but it's been a gran' day!"

"It has," the youth assented.

"Think ye could come again on the morrow, laddie?"

"Well," the young man answered reflectively. "I was to be married, but I daresay I can put it off."

Below Par

Teacher—"Let us suppose a cat has fallen into a well. The walls of the well are slippery, and every two feet she climbs, she falls back one. How long will it take her to get out?"?

Son of Efficiency Expert—"I have little or no interest in such a cat."—Magnolia Oil News.

7716

Ambition

It was back in the old days at St. Nazaire. A couple of perspiring negro stevedores had stopped work for a chat.

"Boy," said the first, "what yo'-all want mos'

when yo'-all am dischanged f'um de ahmy?''
"Ah wants mah rifle, mos' of all," replied the second.

"Yo' rifle? Whaffo' yo' want yo' rifle?"

"So's when Ah gits me home Ah kin plant it in de middle of mah yahd, an 'when it rains Ah sits me by de window an' says: 'Rust, yo' son of a gun, rust!''—American Legion.

In the cemetery at South Bethlehem, Pa., the sign appears: "Persons are prohibited from picking flowers from any but their own graves."

In the malarial swamps, chills and fever are a common and almost universal ailment. One morning at breakfast the old farmer's son pushed back his corn cakes and syrup and said wearily:

"Pap, my chill is comin' on."
"Be she?" said the farmer as he briskly arose, "Wall, hold her just a moment, till I git the churn fixed for you.'

Unquestionably the man ahead was drunk, so the officer gave chase and after some manipulation forced the car to the curb.

"What do you mean by driving a car in this con-

dition?" he demanded.

"'S all right, Ossifer," the boiled one replied, "I'm gonna her 'er overhauled soon's I get sober."-Baltimore Sun.

No Accident

He was being medically examined preparatory to taking out an insurance policy.

"Ever had a serious illness?" asked the deputy.

"No," was the reply.

"Ever had an accident?"

"Never had a single accident in your life?"

"Never, except last spring when a bull tossed me over a fence.'

'Don't you call that an accident?"

"No, sir! He did it on purpose."—Wallace's Farmer.

"What a charming baby! And how it does resemble your husband!'

'Gracious, I hope not! We adopted it!''-American Legion Weekly.

In English Class

Teacher-"I have went. That's wrong, isn't it?" Pupil—"Yes, ma'am."
Teacher—"Why is it wrong?"

Pupil—"Because you ain't went yet."—Exchange.

Wm. P. McDonald Construction Co.

ASPHALT PAVING CONTRACTORS

MAIN OFFICE

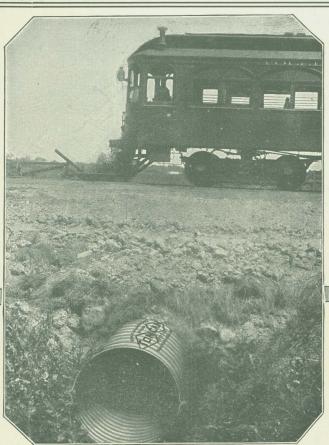
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Culverts
cut
maintenance
costs





Culverts reduce labor expenses

Quality

Service

THE BERGER MANUFACTURING CO., JACKSONVILLE, FLA.

Status of Road Construction

THROUGH JUNE 30th, 1926

No. Contractor No. County Miles Miles Miles Miles Miles Type County										
131 David Engr. & Contr. Co. 2 Hamilton 11.82		Contractor		Length						Per Cent Complete
18	31 40-A 41	Duval Engr. & Contr. Co 2 C. F. Lytle	Hamilton Brevard Dade	. 11.82 . 16.17 . 12.00	10.78	7.29	$\frac{4.07}{16.17}$	0.00 13.74	S.T. S.T. S.A.	98.30 37.00 97.00 28.00 100.00
514 State Convict Forces 1 Jackson 11.04 3.00 1.66 0.00 0.00 S.C. 18.1 543 Lake Worlt Const. Co. 8 Highlands 5.37 1 3.43 0.00 S.T. 64.0 552.4 H. E. Wolfe 8 Highlands 5.37 1 12.10 12.10 12.10 12.10 12.0 0.00 S.T. 64.0 S.T. 67.2 1 66.0 S.T. 97.6 61.3 1 1.07 4.50 2.0 0.0 S.T. 61.3 61.3 61.3 1.0 1.0 0.0 S.T. 61.3 61.3 61.4 8.51 6.20 0.0 S.T. 62.1 61.0 1.0 0.0 S.T. 62.1 61.0 <td< td=""><td>48 49 50-B</td><td>A. J. Hoffman 4 A. J. Hoffman 4 B. Booth & Co. 14</td><td>St. Johns</td><td>15.94 13.81 9.77</td><td>15.46 11.18 7.82</td><td>9.88 2.48 4.40</td><td></td><td>3.58</td><td>G. G. G.</td><td>85.00 67.00 29.50 57.00 59.00</td></td<>	48 49 50-B	A. J. Hoffman 4 A. J. Hoffman 4 B. Booth & Co. 14	St. Johns	15.94 13.81 9.77	15.46 11.18 7.82	9.88 2.48 4.40		3.58	G. G. G.	85.00 67.00 29.50 57.00 59.00
State Convict Forces 5	500-A 514 543 562-A 581	State Convict Forces 1 Lake Worth Const. Co 3 H. E. Wolfe 8	Jackson	11.04 14.20 5.37	3.00 0.00	1.60 0.00	3.43	0.00	S.C. G. S.T.	5.00 18.00 0.00 64.00 97.00
Section Complete to May 31st, 1926 Putnam 6.27 6.27 6.27 5.26 0.00 S.T. 96.	621	State Convict Forces 5 618—L. M. Gray 5 Penton-Mathis Const. Co. 1	Sarasota	17.07 16.06 17.35	4.50 12.32	2.00 8.67		0.00	G. S.T. G.	64.00 13.00 18.10 48.30 65.00
B. Booth & Co. 3 Putnam 10.82 10.82 10.82 2.95 0.00 S.T. 26.5 44.4 Gills Const. Co. 10 Wakulla 8.49 5.09 5.09 5.09 G. 60.0 648-A Federal Contr. Co. 2 Hardee 14.17 11.33 9.21 G. G. 67.6 648-A Federal Contr. Co. 2 Hardee 14.17 11.33 9.21 G. G. 67.6 648-A Wh.P. McDonald Const. Co. 3 Okaloosa 10.42 10.42 10.42 10.42 S.C. 100.0 651 State Convict Forces 10 Gulf 14.72 11.03 8.82 44 S.C. 27.8 652 Penton-Mathis Const. Co. 33 Okaloosa 9.04 9.04 9.04 9.04 5.00 S.C. 92.6 655 H. E. Wolfe 18 Highlands 13.26 13.26 11.93 7.69 0.00 S.T. 92.6 655 H. E. Wolfe 18 Highlands 13.26 13.26 11.93 7.69 0.00 S.T. 92.6 655 State Convict Forces 6 Jackson 10.00 8.00 7.50 G. 6.00 S.C. 660 B. Booth & Co. 3 Clay 10.52 10.00 6.84 G. G. 61.6 61.	627° 631 633 634	L. M. Gray	Washington Gadsden Jackson	8.53 9.61 11.07	8.52 9.61 11.07	4.70 9.61 10.18	5.26	9.61	G. S.C. S.C.	96.00 50.00 100.00 86.60 24.00
State Convict Forces	642 644-A 648-A	F. S. Whitney. 3 Gillis Const. Co. 10 Federal Contr. Co. 2	Putnam Putnam Wakulla Hardee	10.82 10.82 8.49 14.17	10.82 5.09 11.33	5.09 9.21			S.T. G. G.	100.00 26.10 60.00 67.00 0.00
B. Booth & Co. 3 Clay 10.52 10.00 6.84 G. 61.6	651 652 655	State Convict Forces10 Penton-Mathis Const. Co33 H. E. Wolfe18	Gulf	$ \begin{array}{c} 14.72 \\ 9.04 \\ 13.26 \end{array} $	$ \begin{array}{r} 11.03 \\ 9.04 \\ 13.26 \end{array} $	8.82 9.04 11.93	7.69	5.00 0.00	S.C. S.C. S.T.	100.00 27.80 92.00 92.00 60.00
See Section See See Section Section Section Section Section Section Section Sectio	660 661 663	B. Booth & Co	Clay	10.52 3.52 8.03	10.00 3.17 7.87	6.84 3.17 7.23	3.41		G. S.A. G.	85.00 61.00 90.50 90.50 95.00
Complete to May 31st, 1926 109.56 17.15 10.74 60.58 89.07 23.20 440.41 448.14 45.86 1244.7 12.57 12.6 13.0	670 672 673	State Convict Forces 6 State Convict Forces 1 State Convict Forces 1	Jackson	12.30 9.92 9.90	12.30 9.92 7.00	$ \begin{array}{r} 10.00 \\ 7.25 \\ 6.00 \end{array} $		$9.00 \\ 4.96 \\ 0.00$	S.C. S.C. S.C.	75.00 75.00 80.00 55.00 9.00
St. Lucie	676-B 679 682	McLeod Const. Co	Levy	14.39 7.12 6.45	3.59 7.12 5.94	2.16 6.41 4.72			G. G. G.	11.50 13.00 8.39 86.00 100.00
Total Complete June 30th, 1926								10000		10.70 3.90
Concrete Brick B.C. S.A. B.M. Asp. Blk. S.T. S.C. Marl Total Complete to May 31st, 1926	Comple	te month of June, 1926			1533.11 38.83 1494.28	1477.14 33.29	16.98	26.00		
Complete month of June 1.64 2.58 15.70 5.14 25.0						Asp. Blk	. S.T.	S.C.	Marl	Total
Total to Date						23.20			45.86	$1244.71 \\ 25.06$
	Total to	Date	111.20 17.15 10.	74 63.1	6 89.07	23.20	456.11	453.28	45.86	1269.77

Note—The above tabulation shows only those projects that are actually under construction at the present time and does not show projects that have been previously completed. However, the table, "Total miles completed," at the foot includes all projects that have been completed prior to June 30, 1926, and the amounts completed in June also. The abbreviations are as follows:

C.—Concrete. S.A.—Sheet asphalt. B.M.—Bituminous macadam. R.—Rock base. S.C.—Sand clay. G. & D.—Graded and drained. S.T.—Surface treated. B.C.—Bituminous concrete.



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where President and Mrs. Coolidge are spending the summer months.

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